

THE GENUS *STATHEROTMANTIS* DIAKONOFF (LEPIDOPTERA:
TORTRICIDAE: OLETHREUTINAE) ON THE CHINESE MAINLAND, WITH
DESCRIPTIONS OF FOUR NEW SPECIES

HOUHUN LI AND HALI YU

College of Life Sciences, Nankai University, Tianjin, 300071, P. R. China (e-mail:
lihounun@nankai.edu.cn)

Abstract.—Five species of *Statherotmantis* Diakonoff are known from the Chinese mainland, four of which are described as new, *Statherotmantis expansa* Li and Yu, n. sp., *S. spinulifera* Li and Yu, n. sp., *S. maoerica* Li and Yu, n. sp. and *S. triangularis* Li and Yu, n. sp. *Statherotmantis shicotana* (Kuznetsov) is newly recorded from Tianjin, Hebei, Henan, Hubei, and Hunan provinces. Keys to the species of the genus based on male and female genitalia are given for the world fauna.

Key Words: Lepidoptera, Tortricidae, Olethreutinae, *Statherotmantis*, systematics, new species, China

Statherotmantis Diakonoff, 1973, is a small genus of Olethreutini, consisting of four species to date: *S. peregrina* (Falkovitch 1966), *S. shicotana* (Kuznetsov 1969), *S. pictana* (Kuznetsov 1969), and *S. laetana* Kuznetsov 1988. They are all known from eastern and southeastern Asia (Falkovitch 1966; Kuznetsov 1969, 1988, 2001; Diakonoff 1973; Kawabe et al. 1992; Byun et al. 1998; Liu and Li 2002). Adults of *Statherotmantis* possess a large triangular, rectangular, or semi-circular white costal spot on the forewing formed by the oblique extension of costal strigulae three through seven. The male genitalia usually possess the following combination of characters: uncus ovate or bilobed; socius large, long ovate and densely covered with long hairs; gnathos a strong transversal band expanded medially, with two small lateral prominences and a long dorsal median prominence (except *S. shicotana*); and valva with a ridge or fold at base of cucullus. In the female genitalia, the eighth tergite

is a large collar; sterigma is a simple sclerite or tucked around ostium, often extending laterally and anteriorly; and there are two large pectic signa. The presence of the transversal rib of the valva occasionally accompanied by a ventral lobe in the male genitalia may be an autapomorphy of the genus (Razowski 1989). Detailed descriptions of the morphology of *Statherotmantis* were provided by Diakonoff (1973) and Razowski (1989).

In China, two species of *Statherotmantis* were recorded previously, *S. pictana* from Taiwan (Kawabe et al. 1992) and *S. shicotana* from Shandong Province (Liu and Li 2002). In this study five species of the genus from the Chinese mainland are recognized, including *S. shicotana* and four previously undescribed species: *S. expansa*, n. sp., from Fengyongzhai Nature Reserve, Sichuan Province and Zhangjiajie Nature Reserve, Hunan Province; *S. spinulifera*, n. sp., from Fanjing Nature Re-

serve, Guizhou Province; *S. maoerica*, n. sp., from Mt. Mao'er Nature Reserve, Guangxi; and *S. triangularis*, n. sp., from Mt. Mao'er, Guangxi and Mt. Leigong Nature Reserve, Guizhou Province.

MATERIALS AND METHODS

Specimens used in this study were collected by light traps from ten forest reserves and three mountain villages in China. The vegetation of the sites is mainly hardwood forest or mixed conifer and hardwood forest. Terminology for wing patterns follows R. Brown and J. Powell (1991) as refined by J. Baixeras (2002). Methods of genitalia dissection follow H. Li and Z. Zheng (1996). Permanent slides of the abdominal pelts and genitalia were mounted in Canada balsam. Photographs of adults and genitalia of both sexes were taken with a Nikon Coolpix 4,500 digital camera adapted to an Olympus CH30-313E microscope. The types and other specimens examined are deposited in the Insect Collection, College of Life Sciences, Nankai University, Tianjin, China.

SYSTEMATICS

Statherotmantis Diakonoff 1973

Statherotmantis Diakonoff 1973: 288.

Type species: *Proschistis pictana* Kuznetsov 1969, by original designation.

Adults of *Statherotmantis* resemble *Cephalophyes* Diakonoff and some species of *Statherotis* Meyrick in appearance by possessing a white costal spot, but they can be distinguished by the male genitalia. In *Cephalophyes* the uncus is oval or somewhat inverted-triangular, constricted at the base, and has lateral projections; the socius is small; the gnathos is a simple membranous band; and the valva has no ridge or fold. In *Statherotis* the uncus is hooked and often bifurcate apically; the socius is small; the

gnathos is variably developed, if present, often projecting medially, but lacking lateral prominence; and the valva is expanded outward at about distal 1/3 of ventral margin forming a triangular process. Some species in *Neopotamia* Diakonoff are similar to members of *Statherotmantis* in the female genitalia, with the eighth tergite a large collar; however, *Neopotamia* can be separated easily by its two large and unequal signa.

KEY TO *SATHEROTMANTIS* SPECIES OF THE WORLD BASED ON MALE GENITALIA

1. Uncus with two central hairy areas and naked margins; socius very small; gnathos without median prominence, lateral prominences long (Fig. 6) *shicotana* (Kuznetsov)
- Uncus with dense hairs throughout; socius large, oval; gnathos with a long median prominence, lateral prominences short 2
2. Uncus small, hooked; socius triangular (Kuznetsov 1988: 170, pl. 3, Fig. 5). *laetana* Kuznetsov
- Uncus large, oval or bilobed; socius ovate or elongate-ovate 3
3. Gnathos with median prominence furcate apically 4
- Gnathos with median prominence not furcated apically 7
4. Gnathos with median prominence inverted T-shaped apically, lateral prominences broad, tongue-like, with dense spinules (Fig. 9) *spinulifera* Li and Yu
- Gnathos with median prominence bifid apically, lateral prominences narrow, short, finger-like, naked 5
5. Valva with costa possessing a vertical lobe medially, rounded and naked; cucullus long and triangular, sharply narrowed apically (Fig. 8) *triangularis* Li and Yu
- Valva without vertical lobe at middle of costa; cucullus elongate 6
6. Valva with sacculus constricted at distal 1/3, apex broad and rounded (Kuznetsov 1969: 355, Fig. 5) *pictana* (Kuznetsov)
- Valva with sacculus slightly concave at distal half, apex narrow and pointed (Kuznetsov 2001: 231, pl. 139, Fig. 4) *peregrina* (Falkovitch)
7. Uncus large, bilobed; gnathos with median prominence coincident in breadth at apical half, lateral prominences absent; valva with a triangular lobe at apex of sacculus (Fig. 10) *maoerica* Li and Yu

- Uncus relatively small, oval; gnathos with median prominence expanded apically, apex about 1.5 times as broad as $3/5$ length (the narrowest portion); valva with a rounded lobe at apex of sacculus (Fig. 7) *expansa* Li and Yu

KEY TO *SATHEROTNANTIS* SPECIES OF THE WORLD BASED ON FEMALE GENITALIA (Females of *S. laetana* Kuznetsov and *S. spinulifera* Li and Yu are unknown)

1. Sterigma two times as large as papilla analis (Fig. 11) *shicotana* (Kuznetsov)
- Sterigma smaller than papilla analis 2
2. Sterigma a simple sclerite without lateral folds 3
- Sterigma with lateral folds 4
3. Sterigma round (Fig. 14)
. *maoerica* Li and Yu
- Sterigma trapezoidal (Kuznetsov 1969: 355, Fig. 6) *pictana* (Kuznetsov)
4. Sterigma small, folded over ostium; ostium slitlike (Fig. 12) *expansa* Li and Yu
- Sterigma moderate, not folded over ostium; ostium oval 5
5. Sterigma subrescentic, lateral angle sharp, lateral folds pear-shaped, narrow (Falkovitch 1966: 211, Fig. 4)
. *peregrina* (Falkovitch)
- Sterigma somewhat jar-shaped, lateral angle rounded, lateral folds rounded (Fig. 13) *triangularis* Li and Yu

Statherotmantis shicotana
(Kuznetsov 1969)
(Figs. 1, 6, 11)

Proschistis shicotana Kuznetsov 1969: 357, fig. 7.

Statherotmantis shicotana: Diakonoff 1973: 289, fig. 435.

Adult (Fig. 1).—Forewing length 4.0–5.0 mm in male.

Male genitalia (Fig. 6): As illustrated.

Female genitalia (Fig. 11): As illustrated.

Remarks.—This species is relatively small and differs greatly from other known species of the genus in the male genitalia. The uncus is very large, naked on margin, and with two fine hairy areas medially; the socius is very small; the gnathos has two well-developed lateral prominences and lacks a median prominence; and the valva

is broad, almost naked, and has a large lobe at apex of sacculus.

Distribution.—China (Tianjin, Hebei, Shandong, Henan, Hubei, Hunan); Korea; Japan; Russia (Far East). Liu and Li (2002) reported it from Shandong Province.

Material examined.—China: Mt. Baishi (39°12'N, 114°41'E), Hebei Province, 1,300 m, 21 vii 2000, 1 ♂, leg. Haili Yu, Hongmei Li and Yurong Wang; She County (36°34'N, 113°40'E), Hebei Province, 700 m, 2 viii 2000, 1 ♂, leg. Haili Yu, Hongmei Li and Yurong Wang; Ji County (40°02'N, 117°24'E), Tianjin, 130 m, 9 vi 2004, 1 ♂, leg. Houhun Li; Ji County (40°02'N, 117°24'E), Tianjin, 550 m, 23 vi 2001, 1 ♀, leg. Houhun Li; Wufeng County (30°12'N, 116°40'E), Province Hubei, 1,000 m, 12 vii 1999, 1 ♂, leg. Houhun Li; Lushi County (34°03'N, 111°02'E), Henan Province, 1,000 m, 20 vii 2001, 1 ♂, leg. Dandan Zhang; Song County (34°08'N, 112°05'E), Henan Province, 1580 m, 18–25 vii 2002, 4 ♂, leg. Xinpu Wang; Hui County (35°27'N, 113°47'E), Henan Province, 780 m, 12 vii 2002, 1 ♂, leg. Xinpu Wang; Sangzhi County (29°23'N, 110°11'E), Hunan Province, 1250 m, 14 viii 2001, 1 ♂, leg. Houhun Li and Xinpu Wang.

Statherotmantis expansa Li and Yu,
new species
(Figs. 2, 7, 12)

Diagnosis.—This species is similar to *S. maoerica* in the male genitalia, but can be separated from it by the following characters: tegumen long and narrow; uncus small, oval; and gnathos with median prominence expanded apically, lateral prominences distinct. In *S. maoerica*, the tegumen is short and broad, the uncus is large, broad, and bilobed, and the gnathos has a median prominence not expanded apically and lacks lateral prominences.



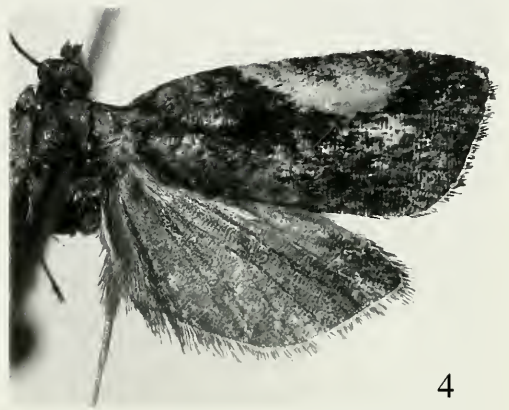
1



2



3



4



5

Figs. 1-5. Adults of *Statherotmantis* spp. 1, *S. shicotana*, male. 2, *S. expansa*, female, paratype. 3, *S. triangularis*, male, holotype. 4, *S. spinulifera*, male, holotype. 5, *S. maoerica*, male, paratype.

Description (Fig. 2).—Head roughly scaled, deep fuscous. Antenna fuscous. Labial palpus porrect or ascending; basal segment gray white or pale fuscous; median segment pale fuscous basally,

distal half with long rough scales, from pale fuscous to deep fuscous; terminal segment fuscous to deep fuscous, pointed. Thorax and tegula fuscous, with a crest posteriorly. Legs pale fuscous or



6



7



8



9



10

Figs. 6–10. Male genitalia of *Statherotmantis* spp. 6, *S. shicotana* (slide no. YHL04148). 7, *S. expansa*, holotype (slide no. YHL04904). 8, *S. triangularis*, holotype (slide no. YHL04918). 9, *S. spinulifera*, holotype (slide no. YHL04917). 10, *S. maoerica*, holotype (slide no. YHL04149).

pale yellowish fuscous; tarsi deep fuscous, with a yellowish fuscous ring at apex of each subsegment; median tibia fuscous, densely covered with narrow, pointed scales, and a yellowish-fuscous ring at middle and apex; posterior tibia

pale gray, with dense scales and a pale yellow hair pencil at base.

Forewing length 6.0–8.0 mm in male, 6.2 mm in female. Upperside ground color fuscous; costa with nine pairs of strigulae from base to R_4 ; strigulae

distributed as follows: four pairs (strigulae 1–4) between base of wing and point where Sc meets costa, two pairs (strigulae 5–6) between Sc and R_1 , one pair (strigula 7) between R_1 and R_2 , one pair (strigula 8) between R_2 and R_3 , one pair (strigula 9) between R_3 and R_4 ; each pair of strigulae with a leaden (silvery) stria extending obliquely; basal two pairs before $1/4$ forewing length, indistinct, striae from them extending to base and $1/3$ length of dorsum, respectively; strigulae three to seven white, striae from strigulae three and four extending obliquely to dorsum before tornal angle, broken from base of R_2 to $1/6$ length of M_3 ; striae form strigulae five and six extending obliquely to tornus, broken at midlength of M_2 ; strigulae eight and nine represented by a single marking, striae from them and strigula seven confluent, extending to termen between R_5 and M_1 ; strigula ten on termen between apex and R_5 , indistinct; strigulae on termen undefined, no more than three distinguishable; fasciae indistinguishable, except subbasal fascia deep fuscous, broad, fused with broken umbrae of median fascia and postmedian fascia, forming a large V-shaped fascia, extending to dorsum between $1/2$ and $3/4$ length; a large, inverted triangular white suffusion with yellow spot from strigulae three to seven below costa, surrounded by the V-shaped fascia, its lower angle reaching base of M_2 ; sparse small white dots between M_2 and distal $1/3$ of dorsum; cilia fuscous, with deep fuscous baseline; underside fuscous, gray white in overlapping area, costal strigulae one and two pale fuscous, three to nine and terminal strigulae white, area of hindwing overlap posterior to CuP. Hindwing upperside fuscous, pale gray on area of forewing overlap; cilia pale gray with fuscous baseline; underside concolorous with forewing underside.

Male genitalia (Fig. 7): Tegumen long, narrow. Uncus small, oval, drooping,

with dense scale-like hairs beneath. Socius large, elongate-oval, with dense scalelike hairs. Gnathos with a long dorsal prominence at middle, broad at base, constricted at $3/5$ length, expanded apically, apex about 1.5 times width at basal $3/5$ in breadth, lateral prominences short, rounded and naked. Valva slender; sacculus with sparse spines, two small rounded lobes near apex: the proximal one vertical with short spines, the distal one transverse with thin thorns; cucullus densely thorny on ventral part, protruding ventrally at base, with a pointed angle, carrying a thorn apically. Aedeagus short and narrow.

Female genitalia (Fig. 12): Apophyses anterior slightly shorter than apophyses posterior. Sterigma small, folded over ostium, nearly quadrate, with spinules and small lateral folds below. Ostium slot-like. Colliculum long. Ductus bursae long. Corpus bursae oval, densely granulated, with two pectinate signa.

Types.—Holotype ♂, China: Baoxing County ($30^{\circ}22'N$, $102^{\circ}50'E$), Sichuan Province, alt. 1,600 m, 3 viii 2004, leg. Yingdang Ren, genitalia slide no. YHL04904. Paratypes: 3 ♂, same data as holotype; 2 ♂, 1 ♀, Zhangjiajie ($29^{\circ}49'N$, $110^{\circ}26'E$), Hunan Province, alt. 650 m, 8–9 viii 2001, leg. Houhun Li and Xinpu Wang.

Etymology.—The specific name is derived from the Latin *expansus* (= expanded), to note the apical shape of the median prominence of the gnathos.

Remarks.—*Statherotmantis expansa*, *S. peregrina*, *S. pictana*, *S. spinulifera*, *S. maoerica*, and *S. triangularis* all possess specialized hairs on the uncus and socii, which are narrow, scalelike, and flat, with a rounded base and pointed apex. And according to the figures of Diakonoff (1973) and Kuznetsov (2001), we presume this kind of scale is present in *S. pictana* and *S. peregrina*. But it is uncertain to be present in *S. laetana*, which was described in Russia, and it is difficult to draw a conclusion



Figs. 11–14. Female genitalia of *Statherotmantis* spp. 11, *S. shicotana* (slide no. YHL04967). 12, *S. expansa* (slide no. YHL04908). 13, *S. triangularis* (slide no. YHL05210). 14, *S. maoerica* (slide no. YHL04909).

from the figure. In *S. shicotana* the uncus possesses very fine and long hairs. We think the vestiture on the uncus and socius in this genus is an important taxonomic character. The costal strigulae of *S. triangularis*, and *S. spinulifera* have the same ground plan as that of *S. expansa*.

***Statherotmantis triangularis* Li and Yu,
new species**

(Figs. 3, 8, 13)

Diagnosis.—This species resembles *Statherotmantis peregrina* in the genitalia, but it can be distinguished from the latter by the shape of valva in the male and the shape of sterigma in the female. These differences are described in the key to species.

Description (Fig. 3).—Head roughly scaled, fuscous. Antenna fuscous. Labial palpus porrect, slightly ascending; basal

segment pale fuscous; median segment pale fuscous except apex fuscous, distal half with long rough scales; terminal segment fuscous, pointed. Thorax fuscous; tegula pale fuscous. Legs pale fuscous; anterior and median tarsi deep fuscous, with yellowish fuscous ring at apex of each subsegment; median tibia pale fuscous, densely covered by narrow, pointed scales, and yellowish fuscous ring at middle and apex; posterior tibia with dense scales, a pale yellow hair pencil at base.

Forewing length 7.0–7.5 mm. Upper-side ground color fuscous, fasciae indistinct; costa with nine pairs of strigulae from base to R_4 ; strigulae one and two indistinct; strigulae three to eight from $1/3$ length of costa to R_3 , white; distal pair indistinct; striae from pairs of strigulae indistinguishable; subbasal fascia extending obliquely to midlength of dorsum, lower part below cell indistinct; a white

semicircular spot below costa between third and eighth pairs of strigulae, suffused with yellow, lower margin reaching base of M_1 ; cilia fuscous, with deep fuscous baseline; underside fuscous, except third to eighth pairs of strigulae and patch below them yellowish fuscous; area of hindwing overlap paler. Hindwing upperside fuscous except pale gray on area of forewing overlapping; cilia pale gray, with fuscous baseline; underside concolorous with forewing underside.

Male genitalia (Fig. 8): Tegumen long, narrow. Uncus small, oval, drooping, with dense scalelike hairs beneath. Socius large, elongate oval, with dense scalelike hairs. Gnathos with a long median bifid prominence, basal 2/3 very broad, constricted at apical 1/4, apex furcated, inverted V-shaped; a ventral inverted trapeziform prominence below median prominence, extending to its 2/3 length and narrower than it; lateral prominence fingerlike, naked. Valva with basal 1/3 narrow; costa with a vertical lobe medially inside vesica, directing inward, translucent, rounded and naked, and concealed by thin spines on distal lobe near apex of sacculus; sacculus concave, with a transverse ridge densely covered by fine spines, apex becoming a rounded lobe, folded; cucullus long-triangular, sparsely covered by fine spines, with five short spines along 1/4 length of ventral margin at base, sharply narrowed apically. Aedeagus short, pointed apically.

Female genitalia (Fig. 13): Apophyses anterior shorter than apophyses posterior. Sterigma extending anteriorly, somewhat jarlike, broad, with spinules medially and around ostium, with rounded lateral folds below. Ostium oval. Colliculum long. Ductus bursae long. Corpus bursae oval, densely granulated, with two pectinate signa.

Types.—Holotype ♂, China: Mt. Mao'er (25°53'N, 110°25'E), Guangxi, alt. 550 m, 20 iv 2002, leg. Shulian Hao and Huaijun Xue, genitalia slide

no. YHL04918. Paratypes: 1 ♂, 1 ♀, Leishan County (26°22'N, 108°03'E), Guizhou Province, alt. 900 m, 13 ix 2005, leg. Jialiang Zhang.

Etymology.—The specific name is derived from the Latin *triangularis* (= triangular), referring to the shape of the cucullus in the male genitalia.

Remarks.—The hairs on uncus and socius were removed in the genitalia preparation.

***Statherotmantis spinulifera* Li and Yu,
new species
(Figs. 4, 9)**

Diagnosis.—*Statherotmantis spinulifera* is similar to *S. pictana* and *S. peregrina* in the male genitalia, but differs from them by the gnathos. In *S. spinulifera*, the median prominence is inverted T-shaped apically, the branches are long, and the lateral prominences bear dense spinules. In *S. pictana* and *S. peregrina* the median prominence is inverted V-shaped apically, the branches are short, and the lateral prominences are naked.

Description (Fig. 4).—Head roughly scaled, fuscous. Antenna fuscous. Labial palpus gray white, ascending; median segment with long rough scales distally, pale gray; terminal segment pointed, gray fuscous. Thorax fuscous; tegula fuscous basally, pale fuscous distally. Legs pale fuscous suffused with white, anterior and median tarsi fuscous, with pale yellow rings at apex of each subsegment, median tibia with narrow and pointed scales, fuscous basally and pale fuscous apically; posterior tibia with dense scales at basal half and a pale yellow hair pencil at base.

Forewing length 7.0 mm in male. Upperside ground color fuscous; fasciae deep fuscous, undefined; costa with nine pairs of white strigulae; strigulae one and two pale fuscous, before 1/5 length of forewing, striae from them extending to

base of dorsum, indistinct; strigulae 3 and 4 white, at $2/5$ length of forewing, striae from them indistinct; distal five pairs pale fuscous, striae from them indistinct; strigulae eight and nine represented by one single marking; subbasal fascia broad, fused with median fascia and postmedian fascia on cell, forming a large V-shaped fascia, extending dorsally to $2/3$ length of dorsum, median fascia represented by a small spot on costa, broken; a long white spot below costal strigulae three and four, with sparse pale yellow scales, extending obliquely to $1/4$ length of R_5 distally, lower margin reaching base of M_1 , surrounded by large V-shaped fascia; cilia fuscous; underside fuscous, costal strigulae pale yellow, and spot pale fuscous, area of hindwing overlap white. Hindwing with upperside grayish white on area of forewing overlapping, cilia gray; underside paler than underside of forewing.

Male genitalia (Fig. 9): Tegumen long, narrow. Uncus small, oval, drooping, with dense scalelike hairs beneath. Socius large, elongate-oval, with dense scalelike hairs. Gnathos with a long median prominence, basal half broad, distal half strongly constricted and bifurcate apically; inverted T-shaped, with long branches; lateral prominences tongue-like, with dense spinules. Valva slender; sacculus with sparse spines, and two rounded lobes apically; the proximal one small and transversal, bearing short spines, distal one large, vertical, and distally reaching base of cucullus, with short thorns; cucullus with sparse fine spines, its base rounded and protruding ventrally, carrying a short thorn apically. Aedeagus short, somewhat thick.

Female: Unknown.

Types.—Holotype ♂, Mt. Fanjing ($27^{\circ}55'N$, $108^{\circ}41'E$), Guizhou Province, alt. 2100 m, 30 vii 2001, leg. Houhun Li and Xinpu Wang, genitalia slide no. YHL04917. Paratype: 1 ♂, same data as holotype.

Etymology.—The specific name is derived from the Latin *spinulifer* (= spinulate), referring to the spinulate lateral prominences of the gnathos.

Remarks.—This species is very similar to *S. triangular* in appearance, especially in the wing patterns, but they are different remarkably in the male genitalia by the shape of gnathos and valva.

***Statherotmantis maoerica* Li and Yu,
new species**

(Figs. 5, 10, 14)

Diagnosis.—This species can be separated easily from other described species of the genus by the large, bilobed uncus. It resembles *S. laetana* and *S. expansa* in the shape of the gnathos. The differences among them are discussed under *S. expansa*.

Description (Fig. 5).—Head roughly scaled, gray fuscous, yellowish fuscous, or blackish fuscous. Antenna from yellowish fuscous to blackish fuscous. Labial palpus ascending, slightly porrect; basal segment white or pale fuscous; median segment with long rough scales distally, pale gray fuscous or fuscous; terminal segment pointed, pale gray fuscous or fuscous. Thorax and tegula fuscous or deep fuscous. Legs pale yellow or pale fuscous, anterior and median tarsi deep fuscous, with a pale yellow or pale fuscous ring at apex of each subsegment; median tibia pale fuscous or fuscous, with narrow pointed scales, as well as pale fuscous rings at middle and apex; posterior tibia with a white or pale yellow hair pencil at base.

Forewing length 7.0–8.0 mm; upperside ground color fuscous to deep fuscous, fasciae blackish fuscous; costa with nine pairs of strigulae from base to R_4 ; strigulae one and two before $1/4$ length of costa, fuscous, lower angle reaching base of M_1 , striae from them extending to base and $2/5$ length of dorsum; distal seven pairs white; strigu-

lae three and four with striae extending obliquely to distal 1/3 of dorsum, broken from base of R_3 to midlength of R_2 ; strigulae five and six with striae extending obliquely to tornus, broken from 2/3 length of R_3 to 3/5 length of M_2 ; strigulae eight and nine represented by a single marking; striae from strigulae seven, eight, and nine confluent, extending to termen between R_5 and M_1 ; basal fascia with fuscous spot; subbasal fascia broad, extending obliquely to midlength of dorsum, distal margin reaching lower angle of cell; median fascia narrow, bordered by yellow edge, broken, lower margin confluent with postmedian fascia and subbasal fascia, forming a large V-shaped marking; postmedian fascia with distal margin reaching termen between M_2 and CuA_1 ; terminal fascia a small dot; an inverted triangular white spot below costa between strigulae three and seven, its upper part with dense yellow scales, surrounded by V-shaped fascia, intersected by striae from strigulae three and seven; strigulae on wing margin between apex and M_2 white, confluent, forming a short line; cilia fuscous, intermixed with white, with blackish fuscous baseline; underside fuscous, distal seven pairs of costal strigulae and strigulae on wing margin pale yellow, area of hindwing overlap white. Hindwing upperside fuscous except gray white on area of forewing overlap; cilia pale fuscous, with fuscous baseline; underside concolorous with forewing underside.

Male genitalia (Fig. 10): Tegumen short and broad. Uncus large, bilobed, drooping, with dense scalelike hairs beneath. Socius large, oval, drooping, with dense scalelike hairs. Gnathos with a long median prominence; basal half broad; apical half narrow, 1/2 width of base, without lateral prominences. Valva narrow; sacculus with sparse spines basally, a small transversal lobe at 2/3 length of ventral edge, densely covered with short spines; a triangular trans-

versal lobe apically, with a line of slender thorns along proximal margin; cucullus with sparse thorns, protruding at 1/4 length of ventral edge, forming a pointed angle, with a thorn apically. Aedeagus slender.

Female genitalia (Fig. 14): Apophyses anterior short, half as long as apophyses posterior. Sterigma broad, weakly sclerotized, naked. Ostium ovoid. Colliculum long. Ductus bursae long. Corpus bursae ovoid, densely granulated, with two pectinate signa.

Types.—Holotype ♂, Mt. Mao'er (25°53'N, 110°25'E), Guangxi, 550 m, 20 iv 2002, leg. Shulian Hao and Huaijun Xue, genitalia slide no. YHL04149. Paratypes: 3 ♂, 1 ♀, same data as holotype; 14 ♂, 4 ♀, same data as holotype except 1,100 m; 2 ♂, 2 ♀, same data as holotype except 19 iv 2002.

Etymology.—The specific name is from the type locality, Mao'er, Guangxi.

Remarks.—This species is a little different from other congeners by the narrow and subrectangular forewing with a relatively darker and narrower costal spot. It is distinguishable by the different structure of the male genitalia.

ACKNOWLEDGMENTS

We thank Prof. Guofang Jiang, Guangxi Academy of Sciences, Prof. Zizhong Li, Guizhou University, Prof. Meicai Wei, Central South Forestry University, Prof. Xiaocheng Shen, Henan Academy of Agricultural Sciences, and Dr. Fu-Ming Shi, Hebei University, China for their assistance in the field. We are also deeply grateful to the anonymous reviewers for providing us very helpful comments and suggestions on this paper. The project was supported by the National Natural Science Foundation of China for the Special Program.

LITERATURES CITED

Baixeras, J. 2002. An overview of genus-level taxonomic problems surrounding *Argyroploce*

- Hübner (Lepidoptera: Tortricidae), with description of a new species. *Annals of the Entomological Society of America* 95: 422–431.
- Brown, R. L. and J. Powell. 1991. Description of a new species of *Epiblema* (Lepidoptera: Tortricidae: Olethreutinae) from coastal redwood forests in California with an analysis of the forewing pattern. *Pan-Pacific Entomologist* 67: 107–114.
- Byun, B. K., Y. S. Bae, and K. T. Park. 1998. Illustrated Catalogue of Tortricidae in Korea. In Park, K. T. and H. Y. Park, eds. *Insects of Korea Series* [2]. Junghaeng-Sa, Seoul. 1–317.
- Diakonoff, A. 1973. The south Asiatic Olethreutini (Lepidoptera, Tortricidae). *Zoologische Monographien van het Rijksmuseum van Natuurlijke Historie* No. 1: 1–700, pls. 1–15.
- Falkovitch, M. J. 1966. New Palaearctic species of leaf-rollers of the subfamily Olethreutinae (Lepidoptera, Tortricidae). *Trudy Zoologicheskogo Instituta Leningrad* 37: 208–227 (in Russian).
- Kawabe, A., F. Komai, and J. Razowski. 1992. Tortricoidea, pp. 103–109. In Heppner, J. B. and H. Inoue, eds. *Lepidoptera of Taiwan* Vol. 1 part 2, Checklist. Scientific publishers, Taipei. 1–276.
- Kuznetsov, V. I. 1969. New East Asiatic species of the leaf-rollers (Lepidoptera, Tortricidae). *Entomologicheskoe Obozrenie* 48: 352–372 (in Russian, English translation, 1969, *Entomological Review* 48: 206–218).
- . 1988. Review of tortrix moths of supertribes Gatesclarkeanidii and Olethreutidii (Lepidoptera, Tortricidae) of the fauna of North Vietnam. *Trudy Vsesojuznogo Entomologicheskogo Obschestva* 70: 165–181 (in Russian).
- . 2001. Tortricidae, pp. 11–472. In *Ler, P. A. ed. Key to the insects of Russian Far East. Vol. V. Trichoptera and Lepidoptera. Pt 3, Dal'nauka, Vladivostok.* 622 pp. (in Russian).
- Li, H. H. and Z. M. Zheng. 1996. Methods and techniques of specimens of Microlepidoptera. *Journal of Shaanxi Normal University (Natural Science Edition)* 24(3): 63–70 (in Chinese).
- Liu, Y. Q. and G. W. Li. 2002. *Fauna Sinica Insecta Vol. 27 Lepidoptera: Tortricidae.* Science Press, Beijing. 463 pp. (in Chinese).
- Razowski, J. 1989. The genera of Tortricidae (Lepidoptera). Part II: Palaearctic Olethreutinae. *Acta Zoologica Cracoviensia* 32: 107–328.